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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,932	02/26/2002	Richard L. Gray	AME-001	8342

22888 7590 09/17/2003

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EXAMINER

ALEMU, EPHREM

ART UNIT PAPER NUMBER

2821

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,932

Applicant(s)

GRAY, RICHARD L.

Examiner

Ephrem Alemu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 31, 32, 38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) 14-30 and 33-37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38 and 39 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 31 is/are rejected.
- 7) ☒ Claim(s) 9-13 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Claims 1-13, 31-32 and 38-39 in Paper No. 4 is acknowledged.

2. Claims 14-30 and 33-37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The restriction requirement is deemed proper and is therefore made **FINAL**.

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13, 31-32, and 38-39, drawn to a method for powering a cold cathode fluorescent light (CCFL), classified in class 315, subclass 291.
- II. Claims 14-25, drawn to a system for powering a cold cathode fluorescent light (CCFL), classified in class 315, subclass 209PZ.
- III. Claims 26-32, drawn to clamping circuitry, classified in class 327, subclass 321.
- IV. Claims 33-37, drawn to driver circuit, classified in class 315, subclass 224.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions II-IV and I are related as products and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product in groups II-IV can be practiced with another materially different product. For example, the system for performing the

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process as described in-group I may not comprise any integrator, control loop, comparator, n-type transistor etc. The system may comprise microprocessor, register, optic controller, etc. instead of the particulars found in groups II-IV.

5. Inventions II and III&IV are related as combination and subcombinations. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because group II does not require a comparator, capacitor, etc. in the clamp circuitry as described in group III or require a pulse generator circuit as described in group IV. The subcombination has separate utility such as using in a printer, display, computer, high intensity discharge lamp lighting, etc.

6. Inventions III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as printer, display, computer, high intensity discharge lamp lighting, etc. See MPEP § 806.05(d).

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Specification

8. The disclosure is objected to because of the following informalities:

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In page 5, line 7, "transistors" should be replaced with --resistors-- because "111" and "112" are resistors as illustrated in Fig. 1D. Appropriate correction is required.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-8 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Ribarich (US 6,525,492).

Re claims 1 and 2, Ribarich discloses an electronic ballast for powering a cold cathode fluorescent light (CCFL) circuit, comprising a ballast controller integrated circuit (IC 2) for powering and operating a fluorescent lamp (i.e., CCFL) circuit (i.e., low and high side driver); wherein during a preheating mode (PH), determining a frequency (i.e., preheating frequency) provided to power the fluorescent lamp (i.e., CCFL) circuit (i.e., low and high side driver) based on a duty cycle (i.e., 50 %) of a driving waveform to the fluorescent lamp (i.e., CCFL) circuit (i.e., low and high side driver) (Figs. 2, 3; Col. 1, lines 58-63; Col. 6, line 43- Col. 7, line 11).

Therefore, given Ribarich system as described above the method of powering a cold cathode fluorescent light (CCFL) circuit as claimed in claims 1 and 2 is inevitable.

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Re claims 3-8, Ribarich further shows sensing a voltage of the driving waveform at a first node (i.e., connecting node of resistors R1 & Rcs) for determining the frequency (Fig. 2; Col. 6, line 54- Col. 7, line 36).

Re claim 31, Ribarich discloses a preheat circuit for controlling a voltage increase on a line, comprising current source (44) and a capacitor (Cph) for limiting the voltage increase to a first predetermined amount and selectively resetting a capacitance of the capacitor to zero to provide a soft start on the line (Figs. 2, 3; Col. 4, lines 9-42).

Allowable Subject Matter

11. Claims 38 and 39 are allowed.

12. Claims 9-13 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fail to teach or suggest, alone or in combination, the following limitations: “sensing a voltage at a second node that is proportional to a CCFL current; and generating a second DC signal that is proportional to a time-averaged voltage at the second node, wherein the second DC signal is used in determining the frequency” as claimed in claim 9; and “switching to a second current source, thereby limiting the voltage increase to a second predetermined amount based on the second current source and the capacitor” as claimed in claim 32.

Claims 10-13 are objected to as being dependent over rejected dependent claim 9.

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Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lin (US 6,396,722); also teaches similar inventive subject matter.

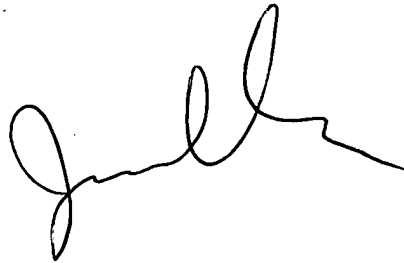
Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (703) 306-5983. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

EA
9-05-03

A handwritten signature in black ink, appearing to be 'J. L. L.', written in a cursive style.